



1

SEQUENCE LISTING

<110> Yu, Xianxhang
Wagner, Thomas

<120> LYTIC PEPTIDE PRODRUGS

<130> 035879-0125

<140> 09/938,623

<141> 2001-08-27

<150> 09/851,422

<151> 2001-05-09

<150> 60/203,063

<151> 2000-05-09

<150> 60/212,042

<151> 2000-06-16

<160> 22

<170> PatentIn Ver. 2.1

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<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide Formula Sequence

<220>

<221> MOD_RES

<222> (33)

<223> Any amino acid or not present; refer to the
specification as filed for preferred embodiments of
this peptide.

<400> 1

Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
1 5 10 15

Ile Ser Trp Ile Lys Arg Lys Arg Gln Gln Gly Ala Ile Gly Gln Pro
20 25 30

Xaa

<210> 2

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide Formula Sequence

<220>

<221> MOD_RES

<222> (33)

<223> Any amino acid or not present; refer to the
specification as filed for preferred embodiments of
this peptide.

<400> 2

Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
1 5 10 15

Ile Ser Trp Ile Lys Arg Lys Arg Gln Pro Gln Gly Ile Ala Gly Gln
20 25 30

Xaa

<210> 3

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide Formula Sequence

<220>

<221> MOD_RES

<222> (29)

<223> Phe or Tyr

<220>

<221> MOD_RES

<222> (32)

<223> Gly or Ser

<220>

<221> MOD_RES

<222> (33)

<223> Any amino acid or not present; refer to the
specification as filed for preferred embodiments of
this peptide.

<400> 3

Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
1 5 10 15

Ile Ser Trp Ile Lys Arg Lys Arg Gln Gln Ser Ser Xaa Tyr Ser Xaa
20 25 30

Xaa

<210> 4
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Peptide Formula Sequence

<220>
 <221> MOD_RES
 <222> (26)
 <223> Gly or Ser

<220>
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 <223> Phe or Tyr

<220>
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 <222> (33)
 <223> Any amino acid or not present; refer to the
 specification as filed for preferred embodiments of
 this peptide.

<400> 4
 Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15
 Ile Ser Trp Ile Lys Arg Lys Arg Gln Xaa Ser Tyr Xaa Ser Ser Gln
 20 25 30
 Xaa

<210> 5
 <211> 25
 <212> PRT
 <213> Entamoeba histolytica

<400> 5
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Val Leu Asp Phe Gly Ile Asp
 1 5 10 15
 Lys Leu Ile Gln Leu Ile Glu Asp Lys
 20 25

<210> 6
 <211> 37
 <212> PRT
 <213> Antheria pernyi

<220>
 <223> Cecropin A

<400> 6

Lys Trp Lys Leu Phe Lys Lys Ile Glu Lys Val Gly Gln Asn Ile Arg
 1 5 10 15

Asp Gly Ile Ile Lys Ala Gly Pro Ala Val Ala Val Val Gly Gln Ala
 20 25 30

Thr Gln Ile Ala Lys
 35

<210> 7

<211> 35

<212> PRT

<213> Antheria pernyi

<220>

<223> Cecropin B

<400> 7

Lys Trp Lys Ile Phe Lys Lys Ile Glu Lys Val Gly Arg Asn Ile Arg
 1 5 10 15

Asn Gly Ile Ile Lys Ala Gly Pro Ala Val Ala Val Leu Gly Glu Ala
 20 25 30

Lys Ala Leu
 35

<210> 8

<211> 36

<212> PRT

<213> Antheria pernyi

<220>

<223> Cecropin D

<400> 8

Trp Asn Pro Phe Lys Glu Leu Glu Lys Val Gly Gln Arg Val Arg Asp
 1 5 10 15

Ala Val Ile Ser Ala Gly Pro Ala Val Ala Thr Val Ala Gln Ala Thr
 20 25 30

Ala Leu Ala Lys
 35

<210> 9

<211> 26

<212> PRT

<213> Apis mellifera

<400> 9

Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15

Ile Ser Trp Ile Lys Arg Lys Arg Gln Gln
 20 25

<210> 10
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 10
 Gln Gly Ala Ile Gly Gln Pro Lys
 1 5

<210> 11
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (26)..(27)
 <223> [epsilon-gamma]-Glu-[alpha-gamma]-Glu

<400> 11
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Val Leu Asp Phe Gly Ile Asp
 1 5 10 15

Lys Leu Ile Gln Leu Ile Glu Asp Lys Xaa Xaa
 20 25

<210> 12
 <211> 26
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (26)
 <223> [epsilon-alpha]-Phe

<400> 12
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Val Leu Asp Phe Gly Ile Asp
 1 5 10 15

Lys Leu Ile Gln Leu Ile Glu Asp Lys Xaa
 20 25

<210> 13
 <211> 27
 <212> PRT
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<220>
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 peptide

<220>
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 <222> (18)
 <223> [epsilon-alpha]-Phe

<220>
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 <222> (27)
 <223> [epsilon-alpha]-Phe

<400> 13
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 1 5 10 15

Lys Xaa Leu Ile Gln Leu Ile Glu Asp Lys Xaa
 20 25

<210> 14
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<220>
 <221> MOD_RES
 <222> (22)
 <223> [epsilon-gamma]-Glu

<220>
 <221> MOD_RES
 <222> (25)
 <223> [epsilon-gamma]-Glu

<400> 14
 Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15

Ile Ser Trp Ile Lys Xaa Arg Lys Xaa Arg Gln Gln
 20 25

<210> 15
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (10)..(13)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (22)..(25)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (34)..(37)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <223> This molecule may encompass smaller embodiments according to the application as filed

<400> 15
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Xaa Xaa Xaa Xaa Val Leu Asp
 1 5 10 15
 Phe Gly Ile Asp Lys Xaa Xaa Xaa Xaa Leu Ile Gln Leu Ile Glu Asp
 20 25 30
 Lys Xaa Xaa Xaa Xaa
 35

<210> 16
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (8)..(11)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (26)..(29)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (32)..(35)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <223> This molecule may encompass smaller embodiments according to the application as filed

<400> 16
 Gly Ile Gly Ala Val Leu Lys Xaa Xaa Xaa Xaa Val Leu Thr Thr Gly
 1 5 10 15
 Leu Pro Ala Leu Ile Ser Trp Ile Lys Xaa Xaa Xaa Xaa Arg Lys Xaa
 20 25 30
 Xaa Xaa Xaa Arg Gln Gln
 35

<210> 17
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic cytolytic peptide

<400> 17
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Val Leu Asp Phe Gly Ile Asp
 1 5 10 15
 Lys Leu Ile Gln Leu Ile Glu Asp Lys
 20 25

<210> 18
 <211> 27
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 procytolytic peptide

<220>
 <221> MOD_RES
 <222> (26)..(27)
 <223> [epsilon-gamma]-Glu-[alpha-gamma]-Glu

<400> 18
 Gly Phe Ile Ala Thr Leu Cys Thr Lys Val Leu Asp Phe Gly Ile Asp
 1 5 10 15

Lys Leu Ile Gln Leu Ile Glu Asp Lys Xaa Xaa
 20 25

<210> 19
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<220>
 <221> MOD_RES
 <222> (22)..(23)
 <223> [epsilon-gamma]-Glu-[alpha-gamma]-Glu

<220>
 <221> MOD_RES
 <222> (26)..(27)
 <223> [epsilon-gamma]-Glu-[alpha-gamma]-Glu

<400> 19
 Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15

Ile Ser Trp Ile Lys Xaa Xaa Arg Lys Xaa Xaa Arg Gln Gln
 20 25 30

<210> 20
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 20

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<210> 21

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Peptide Formula Sequence

<220>

<221> MOD_RES

<222> (22)..(25)

<223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>

<221> MOD_RES

<222> (28)..(31)

<223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>

<221> MOD_RES

<222> (41)

<223> Any amino acid or not present; refer to the
 specification as filed for preferred embodiments of
 this peptide.

<400> 21

Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15

Ile Ser Trp Ile Lys Xaa Xaa Xaa Xaa Arg Lys Xaa Xaa Xaa Xaa Arg
 20 25 30

Gln Gln Gly Ala Ile Gly Gln Pro Xaa
 35 40

<210> 22

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Peptide Formula Sequence

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 <222> (22)..(25)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (28)..(31)
 <223> This region may be selected from the group consisting of [epsilon-gamma]-Glu, [epsilon-gamma]-Glu-[alpha-gamma]-(Glu)1-3, [epsilon-alpha]-(Phe)1-3, [epsilon-alpha]-(Tyr)1-3, [epsilon-alpha]-(Trp)1-3, [epsilon-alpha]-(Lys)1-3 and [epsilon-alpha]-(Arg)1-3.

<220>
 <221> MOD_RES
 <222> (41)
 <223> Any amino acid or not present; refer to the specification as filed for preferred embodiments of this peptide.

<400> 22
 Gly Ile Gly Ala Val Leu Lys Val Leu Thr Thr Gly Leu Pro Ala Leu
 1 5 10 15
 Ile Ser Trp Ile Lys Xaa Xaa Xaa Xaa Arg Lys Xaa Xaa Xaa Xaa Arg
 20 25 30
 Gln Pro Gln Gly Ile Ala Gly Gln Xaa
 35 40